



February 18, 2009

Sent via email

**Eric Johnson
U.S. Environmental Protection Agency
Region 8, 8ENF-T
999 18th Street, Suite 300
Denver, Colorado 80202-2466**

**RE: Progress report for January 2009 activities - Hecla Mining Company Apex Site
(EPA ID No. UT982589848, Docket No. RCRA-8-99-06)**

Dear Mr. Johnson:

Per paragraph 64 of the Order, enclosed is a copy of the January 2009 progress report for your records.

If you have any questions please do not hesitate to call me at (208) 769-4112 or e-mail at pglader@hecla-mining.com.

Sincerely,

A handwritten signature in black ink, appearing to read "P. Glader".

**Paul L. Glader
Manager Environmental Services**

Encl

**Cc: HMC Legal Dept (w/o attachments)
John Jacus, Esq. (DG&S)**



February 18, 2009

Sent via U.S. Mail

**Glenn Rogers, Chairman.
Shivwits Band of Paiute Indian Tribe
6060 West 3650 North
Ivins, Utah 84738**

**John Krause
Bureau of Indian Affairs
400 North 5th Street, Floor 12
Phoenix, AZ 85004**

**Kelly Youngbear
BIA Southern Paiute Agency
P.O. Box 720
St. George, UT 84771**

**RE: Progress report for January 2009 activities - Hecla Mining Company Apex Site
(EPA ID No. UT982589848, Docket No. RCRA-8-99-06)**

Dear Chairman Rogers, Mr. Krause and Ms. Youngbear:

Per paragraph 64 of the Order, enclosed is a copy of the January 2009 progress report for your records.

If you have any questions please do not hesitate to call me at (208) 769-4112 or e-mail at pglader@hecla-mining.com.

Sincerely,

A handwritten signature in black ink, appearing to read "P. Glader", written over a horizontal line.

**Paul L. Glader
Manager Environmental Services**

Encl

**Cc: HMC Legal Dept. (w/o attachments)
John Jacus, Esq. (DG&S) (w/o attachments)
Eric Johnson (USEPA, Region VIII) (w/o attachments)**



February 18, 2009

MEMORANDUM TO: Apex File

COPIES TO: distribution

FROM: Paul Glader

SUBJECT: Progress Report No. 57 for period ending January 31, 2009; Pond 2 Final Closure - Apex Site, Washington County, Utah

Summary

The monthly visual inspection, per the long term monitoring plan, was conducted on January 10. No unusual conditions were noted. The surface monuments were surveyed on January 29.

Geotechnical Monitoring

MEI completed a Surface Monument Survey Data Review, updated to include the data collected through January 2009:

- 1 – Settlement rates of most monuments have decreased to zero
- 2 – Settlement of the reclaimed impoundment top surface has in general continued to decrease very slightly. Average settlement in 2008 was similar to that of 2007 and 2006.

There appear to be no concerns to date with settlement. Consolidation of both the underlying waste materials and final reclamation cover materials appears to be very minimal. This very minor amount of consolidation also reflects that it is unlikely any liquids are leaving the impoundment.

Based on the data showing that the facility has experienced consistently low settlement rates over the past three years, MEI has recommended that Hecla continue to monitor the facility, however with survey data being collected on an annual basis.

Work Planned for Next Period

Visual inspection of site

Cost and Schedule

Committed costs in January 2009 were \$1,457. Total project to date committed is approximately \$1,291,000.

Supplemental Attachments

January 2009 site inspection report

January 2009 cost report

January 29, 2009 Surface Monument Survey – Alpha Engineering Company

February 9, 2009 Surface Monument Survey Data Review - MEI

Annual Site Inspection Summary Sheet - Apex Site - Pond 2

Hecia Mining Company - Long-Term Maintenance and Monitoring Plan

Form 1 of 4 - Summary

Date: <u>1-10-09</u>			
Inspector: <u>D. Thomas</u>			
Cover System Component	Potential Problem	Allowable Limits	Limits Potentially Exceeded
Site Perimeter	Erosion or Fencing Issues	NA	NA
Cover System (outslopes, top, rock)	Subsidence	Minor: ponding < 1" some gulying / erosion	Yes <u>X</u> * No <u> </u>
		Significant: see Table 2	Yes <u> </u> * No <u>X</u>
	Embankment Slope Stability	excessive movement or surface cracks > than 1"	Yes <u> </u> * No <u>X</u>
	Gulying	on top	depth > 1" Yes <u> </u> * No <u>X</u>
		at embankment crest or on outslope	depth > 2" Yes <u> </u> * No <u>X</u>
		w/in normal flow channel in diversion channel	no gulying allowed Yes <u> </u> * No <u>X</u>
		w/in diversions at toe of impoundment outslope	no gulying allowed Yes <u> </u> * No <u>X</u>
		In diversion channel at any other location	NA NA
	Erosion Protection Stability	rock subsiding or missing	Yes <u> </u> * No <u>X</u>
	Seepage	no colored seepage allowed (red, blue, yellow w/ crystallization)	Yes <u> </u> * No <u>X</u>
Runoff Control System	Diversion Channel	rock in place, channel not moving, fence stable	Yes <u>X</u> * No <u> </u>
	Diversion Swales	rock in place, no silting in or head cutting	Yes <u>X</u> * No <u> </u>
	Excessive silt build up at fence lines in diversion channel	allowed if not effecting cover system	Yes <u>X</u> * No <u> </u>

* Mark all areas of concern or requiring repairs on attached site map.

Annual Site Inspection - Apex Site - Pond 2

Hecia Mining Company - Long-Term Maintenance and Monitoring Plan

Form 2 of 4 - Site Perimeter

Inspection Date: <u>1-10-09</u>	
Inspector: <u>D. Tamm</u>	
Visible Outlying Areas	
Observed Condition:	<u>Everything looked normal</u>
Observed Damage:	<u>None</u>
May require repair: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Property Boundary Fence and Gate (walk fence line)	
Observed Condition:	<u>Fence + gate look good</u>
Observed Damage:	<u>None</u>
Potential Corrective Actions:	<u>None</u>
May require repair: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
All Upgradient Areas (areas that drain onto property)	
Observed Condition:	<u>Things remain the same</u>
Observed Damage:	<u>None</u>
May require repair: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

* Mark all areas of concern or requiring repairs on attached site map.

Annual Site Inspection - Apex Site - Pond 2

Hecia Mining Company - Long-Term Maintenance and Monitoring Plan

Form 3 of 4 - Impoundment

Inspection Date: <u>1-10-09</u> Inspector: <u>D. T. [Signature]</u>			
Ouslopes			
Observed Performance:	Rock Cover Subsidence: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	May require repair: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
	Excessive Slope Movement (failure): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	May require repair: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
	Gully Development: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	May require repair: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
	Observable Leachate (colored): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	May require repair: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
	Excessive Siltation (at slope toe): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	May require repair: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Observed Damage: <u>None</u>			
Potential Corrective Actions: <u>None</u>			
Top (top surface soils)			
Observed Performance:	Cracking (>1" width): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	May require repair: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
	Settlement / Evidence of Ponding: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	May require repair: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
	Erosion / Gullyng: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	May require repair: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Observed Damage: <u>None</u>			
Potential Corrective Actions: <u>None</u>			
Erosion Protection Layer (rock)			
Observed Performance:	Rock Staying In Place: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	May require repair: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
	Rock Subsiding: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	May require repair: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
	Missing Rock: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	May require repair: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Observed Damage: <u>None</u>			
Potential Corrective Actions: <u>None</u>			

* Mark all areas of concern or requiring repairs on attached site map.

Annual Site Inspection - Apex Site - Pond 2

Hecla Mining Company - Long-Term Maintenance and Monitoring Plan

Form 4 of 4 - Diversion Channel and Swales

Date: <u>1-16-09</u>			
Inspector: <u>D. [Signature]</u>			
Diversion Channel			
Observed Performance:	Erosion Protection in place:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	May require repair: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
	Normal Flow Channel in place:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	May require repair: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
	Encroaching on Site Fencing:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	May require repair: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Observed Damage: <u>NONE</u>			
Potential Corrective Actions: <u>NONE</u>			
Diversion Swales			
Observed Performance:	Erosion Protection in place:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	May require repair: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
	Flow Channel Silting In:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	May require repair: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
	Head Cutting:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	May require repair: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Observed Damage: <u>NONE</u>			
Potential Corrective Actions: <u>NONE</u>			

* Mark all areas of concern or requiring repairs on attached site map.

Activity	2004 Budget	Revised Budget May 2004	Committed Cost this Period	Cumulative Committed Cost To Date 1-31-09	Forecasted Cost To Complete	Forecasted Final Cost	Remarks on Forecast to Complete
Phases I through III (Completed February 2006)							
Phase I - Drain Excess Liquid From Tailings	189,200	72,700		67,928	0	67,928	
Phases II, IIA + IIB - Evaporate Excess Liquid	6,000	8,000		242,882	0	242,882	
Phase III - Regrading & Final Cover System	337,000	342,050		504,742	0	504,742	
Field Indirect Costs	164,500	213,568		378,517	0	378,517	Includes Jan + Feb 2006 long term monitoring costs
Hecla Costs	18,700	18,700	0	33,324	0	33,324	
Subtotal Phases I through III	715,400	655,018	0	1,227,393	0	1,227,393	
Long Term Monitoring (through FY 2010)							
Site Inspections			182	6,735	1,520	8,255	
Settlement Monitoring			675	7,425	3,000	10,425	
<u>Consultant Support:</u>							
Annual Geotechnical Engineer Inspections				2,495	18,100	20,595	Includes settlement monitoring data analysis
Vegetation Monitoring			0	0	20,000	20,000	Allowance for surveys in FY 2008 - 2010
Site Conditions Review - MEI			600	7,414	2,387	9,801	
Site Conditions Review - SVL Analytical			0	2,079		2,079	
Erosion Repair Review - MEI				2,927	573	3,500	
Revegetation Review - Bamberg					3,500	3,500	
<u>Maintenance:</u>							
Erosion Repair Allowance				21,941	7,500	29,441	Erosion repair conducted April 2008
Revegetation Allowance				9,912	10,000	19,912	Revegetation conducted April 2008
<u>Hecla Project Management Costs:</u>							
Labor			0	2,266	7,909	10,175	
Travel expenses			0	0	1,312	1,312	
Subtotal Long Term Monitoring	0	0	1,457	63,194	75,801	138,995	
Total Pond 2 Final Closure	715,400	655,018	1,457	1,290,587	75,801	1,366,388	



ALPHA ENGINEERING COMPANY

148 East Tabernacle, St. George, UT 84770 • (435) 628-6500 • Fax: (435) 628-6553

**HECLA MINING SITE
MONUMENT MONITORING
(AS-BUILD DATE: JANUARY 29, 2009)**

Monument #	Northing	Easting	Elevation	Remarks
#1	10121.42	10130.68	3685.55	Top alum. cap
#2	10146.06	10277.45	3685.70	Top alum. cap
#3	10092.40	10417.32	3685.89	Top alum. cap
#4	9966.72	10489.51	3685.66	Top alum. cap
#5	9865.73	10437.08	3686.43	Top alum. cap
#6	9807.90	10293.13	3686.27	Top alum. cap
#7	10013.39	10283.62	3686.86	Top alum. cap
#8	9989.98	10130.33	3685.64	Top alum. cap
#9	9862.85	10149.31	3685.59	Top alum. cap
#10	10006.08	9997.80	3678.04	Top alum. cap
#11	9964.21	10309.05	3684.53	Top alum. cap



MEMORANDUM

TO: Paul Glader (Hecla Mining Company)
FROM: Doug Gibbs (Monster Engineering Inc.)
DATE: 2/9/09
SUBJECT: **Surface Monument Survey Data Review – Apex Site**

Surface monument surveying has been conducted quarterly at the Apex Site by Alpha Engineering since January of 2006. Based on data collected through January 2009, the elevation of the reclaimed impoundment top surface has in general continued to decrease very slightly. Average settlement in 2008 was similar to rates during 2006 and 2007.

Survey monument elevation changes since installation and during 2008 are shown in the table below. All data has been corrected based on maintaining a zero elevation change at Monument #10 as it is located outside of the impoundment footprint and should experience no movement between monitoring periods.

Monument	Total Elevation Change Jan. 4, 2006 to Jan. 29, 2009		Elevation Change - 2008 Dec. 13, 2007 to Jan. 29, 2009	
	(feet)	(Inches)	(feet)	(Inches)
1	-0.18	-2.2	-0.07	-0.8
2	-0.14	-1.7	-0.05	-0.6
3	-0.30	-3.6	-0.12	-1.4
4	-0.10	-1.2	-0.06	-0.7
5	-0.08	-1.0	-0.03	-0.4
6	-0.06	-0.7	-0.03	-0.4
7	-0.37	-4.4	-0.08	-1.0
8	-0.22	-2.6	-0.08	-1.0
9	-0.13	-1.6	-0.04	-0.5
10 (baseline @ gate)	NA	NA	NA	NA
11 / Main (impoundment center)	-0.11	-1.3	-0.06	-0.7
Average	-0.17	-2.0	-0.06	-0.7

NA – baseline monument - data corrected to show no movement

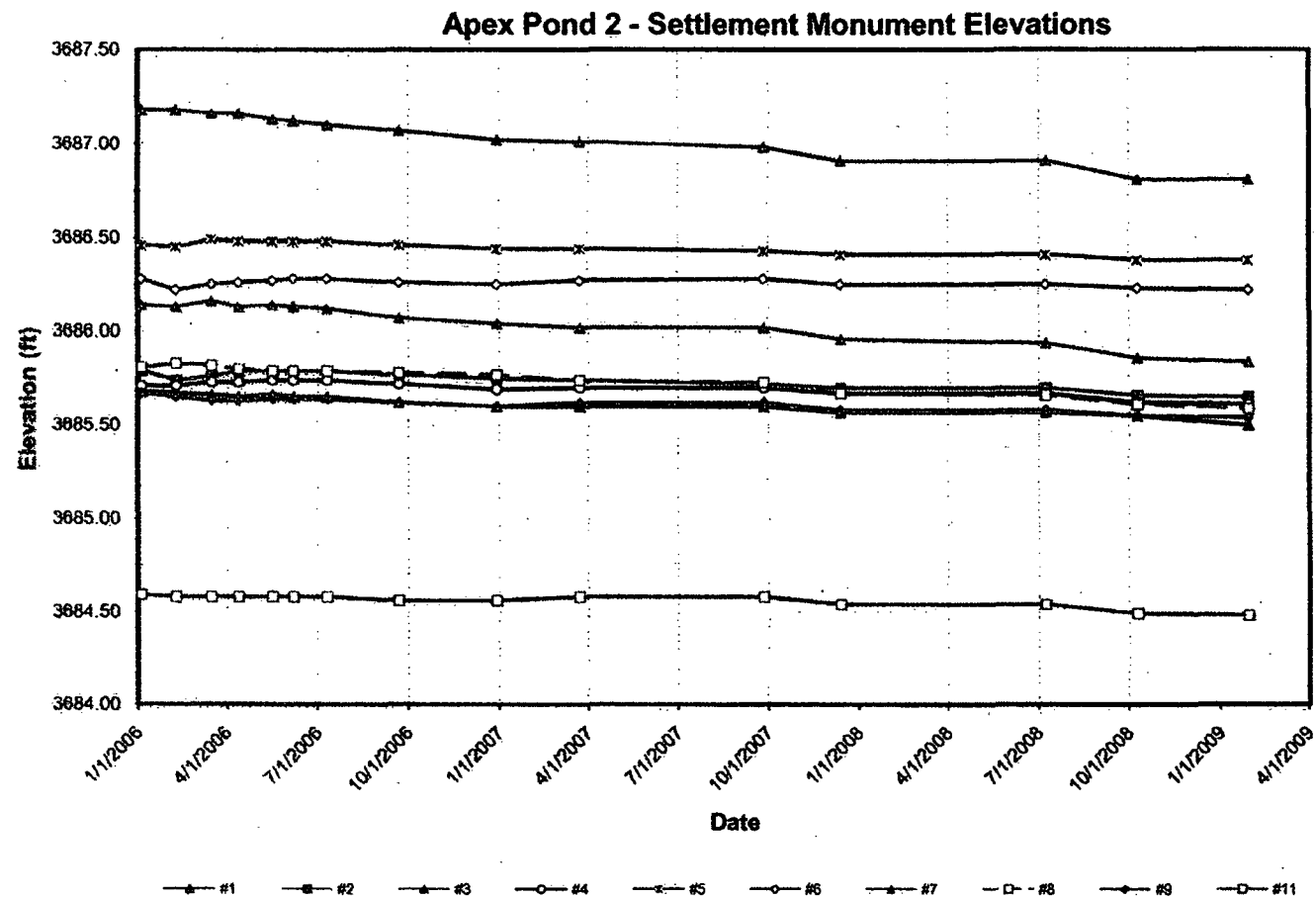
To date most apparent movement from period to period can be attributed to surveying accuracy limitations as data shows individual monument elevations both increasing and decreasing in elevation. However, when data for the monuments is "corrected" by adjusting the survey data to

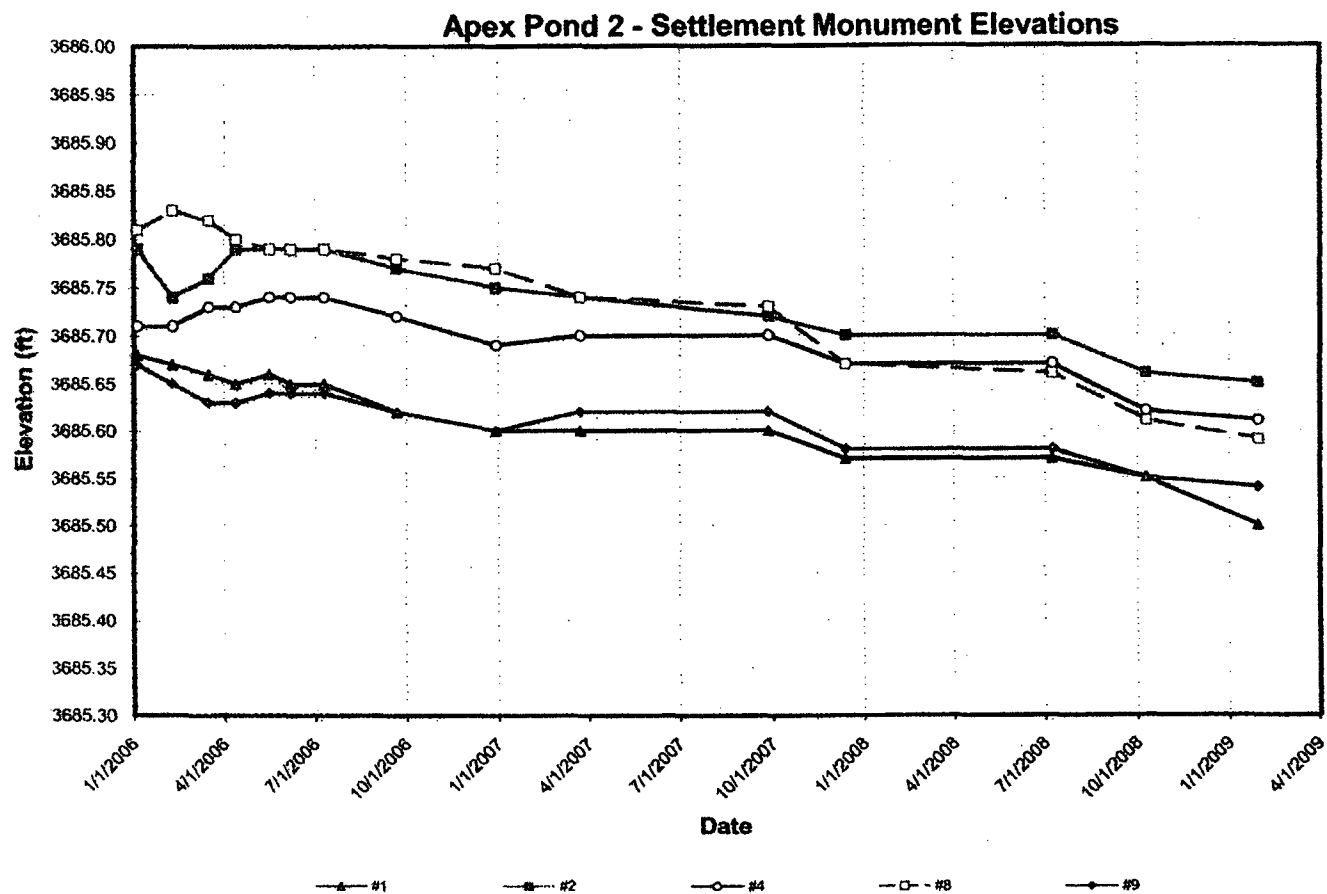
maintain a zero elevation change at Monument #10, then a general trend of decreasing elevations becomes apparent. All elevation data provided by Alpha Engineering is presented graphically on the following pages. The first graph shows all monuments (except monitor #10 the baseline point) on a scale that allows all data to be compared. The next five graphs have expanded and equivalent "Y" axes scales in order to more clearly show elevation changes, and for ease of comparison between graphs.

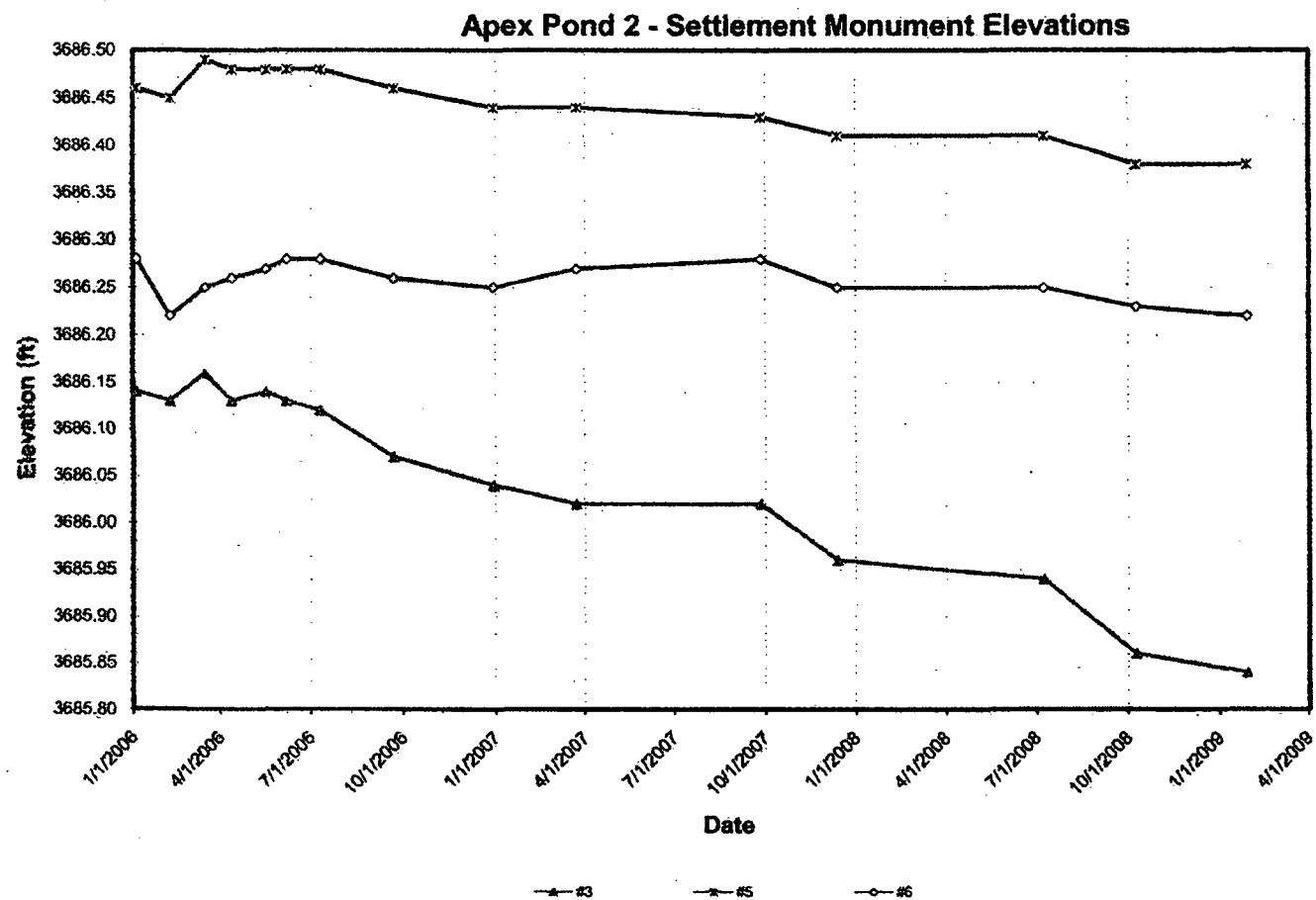
Survey data shows that the northern half of the impoundment has settled slightly more (between 0.14 and 0.3 feet) than the southern half (0.06 to 0.13 feet). A plan view of the impoundment showing each monument location (provided by Alpha Engineering) is attached on the last page of this document. Included on this map are contours showing approximate total settlement of the top surface since monument installation. The largest measured settlement is, as expected, near the center of the impoundment (monitor #7) at -0.37 feet. Slightly greater settlement in and nearer the center of the impoundment is to be expected as significant quantities of fill were placed in this area during construction. Additionally, greater settlement should be expected on the northern half of the impoundment based on the locations and methods utilized to place the original cover materials (prior to final reclamation activities). One portion of the initial reclamation project consisted of placing a temporary earthen/rock cover over the impoundment waste materials. According to Chris Gypton and Alan Wilson, these cover materials were initially dumped into the impoundment in the southwest corner and then were pushed across the impoundment towards the northeast corner. This placement method created a mud wave of unconsolidated waste which moved towards the northeast corner, and eventually a thicker deposit of unconsolidated waste materials in the northern half of the impoundment.

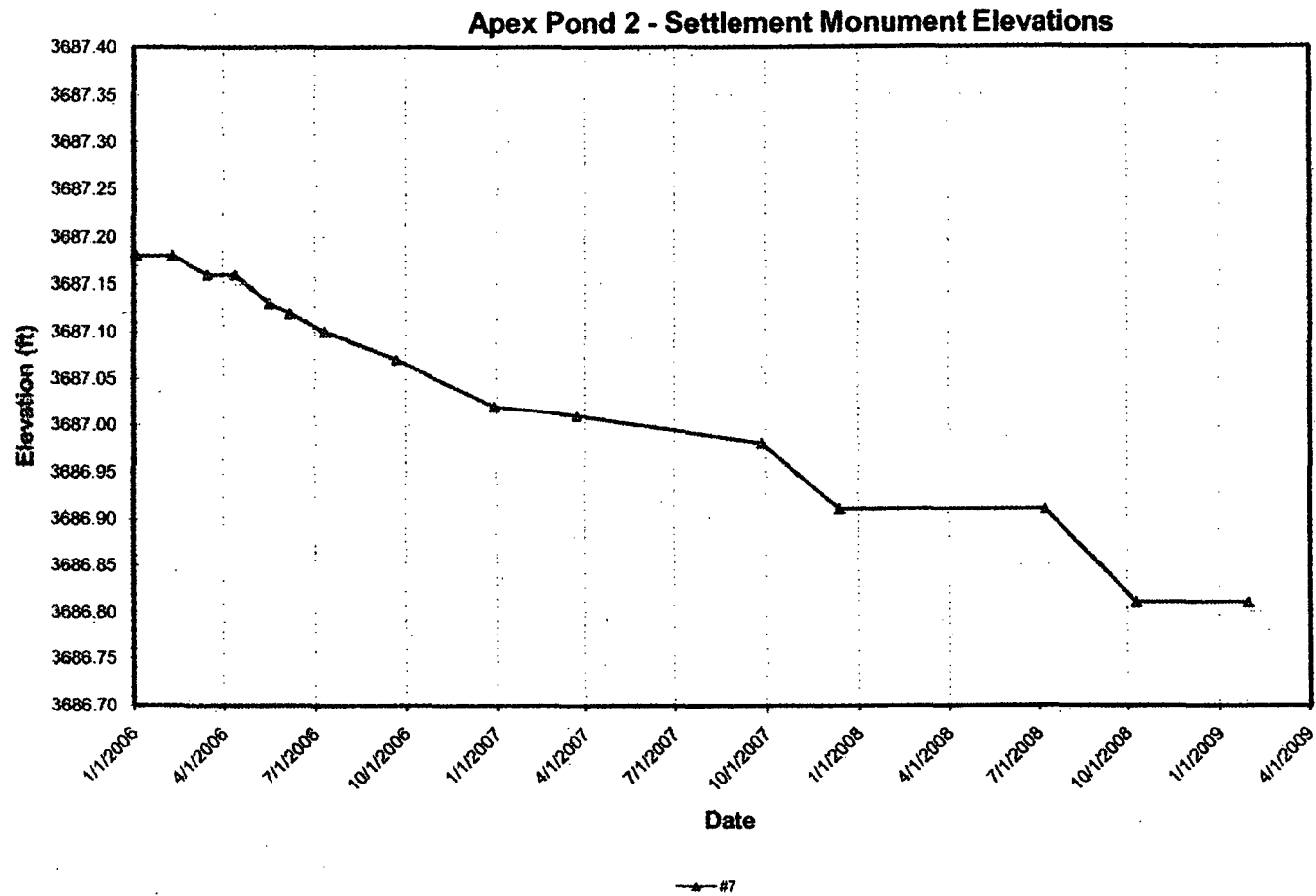
There appear to be no concerns to date with settlement. There are no low spots and no signs of ponding of rain water. As expected with long-term consolidation, the data shows that settlement rates are slightly decreasing over time. Consolidation of both the underlying waste materials and final reclamation cover materials appears to be very minimal. This very minor amount of consolidation also reflects that it is unlikely any liquids are leaving the impoundment.

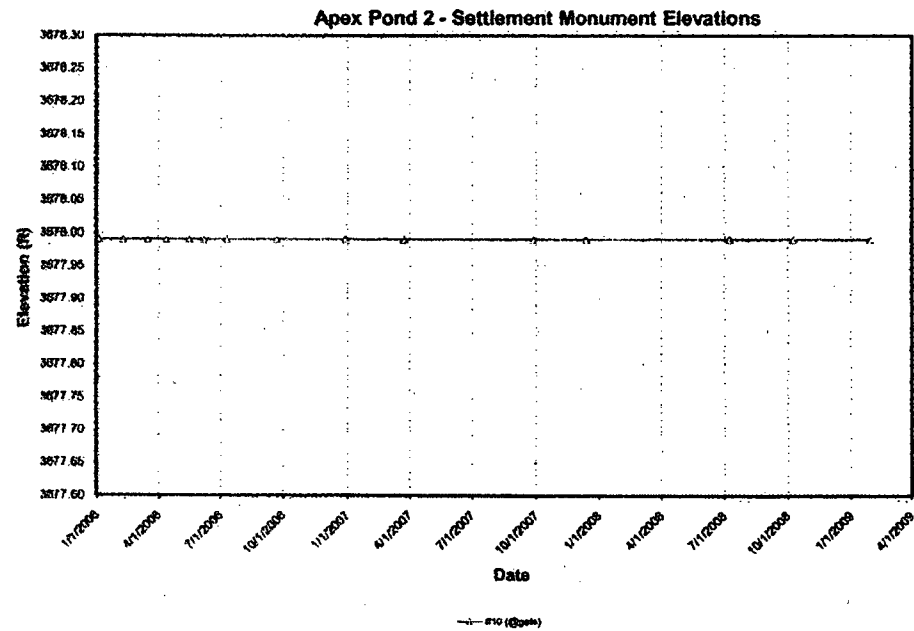
Based on the data showing that the facility has experienced consistently low settlement rates over the past three years, MEI recommends that Hecla continue to monitor the facility, however survey data need only be collected on an annual basis. Please call or email me if you have any questions concerning this review.

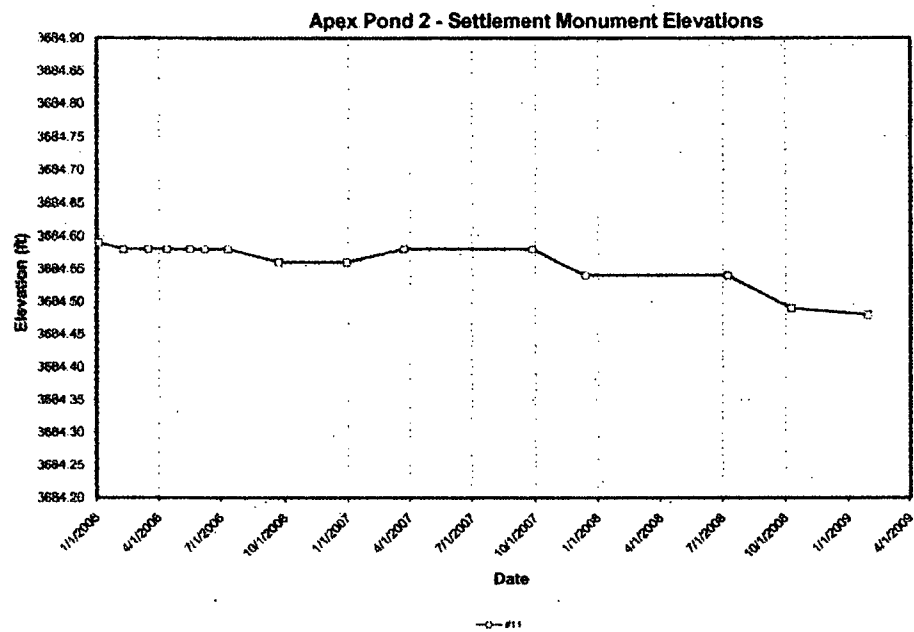












Fw: Apex monthly - February 2009
Eric Johnson to: Amy Swanson

03/12/2009 07:09 AM

FYI.

----- Forwarded by Eric Johnson/R8/USEPA/US on 03/12/2009 07:06 AM -----



Paul Glader
<pglader@hecla-mining.com
>

03/11/2009 04:59 PM

To Eric Johnson/R8/USEPA/US@EPA
cc

Subject Apex monthly - February 2009



Apex Pond 2 - progress rpt complete, february 2009.pdf